ANNEX II

NAVY POSITION ON CAPABILITY OF
CHINESE COMMUNIST RAILROADS

29 January 1954

Considering the complex of handicaps under which the Chinese were working in the three years following the civil war (as examples, see the ten cited below), to have equaled Nationalist Chinese records would have been a commendable achievement. To have matched the achievements of the highly efficient Japanese railroaders in Manchuria (whose average fixed facilities and rolling stock were much better than the Manchurian-Chinese combination) would have been marvelous, so marvelous as to be difficult to believe. But the Communist propaganda boast of 131 million tons originated* does not ask us to believe merely this.

It requires us to believe that in spite of an almost unprecedented combination of handicaps, the Communist Chinese have surpassed the Nationalists and the Japanese in almost every phase of railroading. We are asked to believe a marvel times a marvel times a marvel times a marvel until the "miracle factor" soars beyond calculation.

It is surprising to discover that by selecting the highest factors used in each category by some of the members of the working group, we come up with a figure of 191 million tons or 45 per cent higher than the Communists claimed. These figures in each instance were used in good faith, and no attempt is being made here to impugn the integrity of the analysts involved. There is as much evidence to support one analyst's 25.2 kms. per hour as there is another's 20 kms. per hour or someone else's 15 or 13 kms. per hour. Good logical deductions can be brought forth to support a very high car-utilization figure and equally good ones can be found for supporting a very low utilization factor. There are plausible arguments for accepting a car-park figure of over 40,000 cars, and there

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* The only available translations of this statement actually read "tons hauled" and not "tons originated" and would imply a considerably lower "tons originated" figure.

are equally plausible ones (e.g., a more literal application of CinCPac's figures for destruction of cars in Korea) for accepting a figure of fewer than 40,000 cars. Indeed, by selecting from the splendid variety of intelligence figures available a very logical looking and heavily documented case can be made for almost any tons-originated figure between perhaps 30,000,000 and 200,000,000 tons per year.

A key point, then, is this: there is no way to reach a truly objective conclusion by using intelligence data for the capacity factors and working them out in a formula. The reason for this impossibility is that the very quantity of available evidence forces the analyst to make a choice among many plausible available figures for each factor of capability. For each factor he has to select one figure and reject several others.

On what basis must he make these selections? On the basis of his preconceived notion of the capability of the Chinese Communist railroad system. If he believes they are miraculously efficient, he subconsciously selects figures that support a 131 or 157 or 191 million ton capacity. If he believes they are no better than the Soviets, or that they are worse, he comes out with a figure of perhaps 30 or 40 or 55 million tons. He will have no trouble finding intelligence figures to support any one of these conclusions.

It is apparent then that the whole key to this problem is one's generalized concept of the capability of the Chinese Communist railroads. What the analyst must support is his generalized conclusion; after that the figures come easily. Our job then is to reach a generalized conclusion that is balanced, reasonable, and supported as thoroughly as possible by study and comprehension of the entire problem before us in terms of its geographical, economic, sociological, military, and historical environment. The subsequent adduction of figures, footnotes, and reams of documentation is merely window dressing and rationalization after the fact.

With this in mind, the Navy's conclusions and reasons therefor are presented below.

In favor of high performance achievement by the Chinese Communists are the following factors:

1. They can exploit labor to the limit of human endurance.

2. They can ignore many safety practices, especially those involving safety of personnel.

3. They can, to a degree, force the shippers to fit the convenience and efficiency of the railroad.

4. They can, for a limited time, abuse their equipment by overloading, excessive speeds, etc.

Factors counteracting these are:

1. They have a heterogeneous labor and management pool composed of Communist Chinese, ex-Nationalist Chinese, Japanese, White Russians, and Soviets.

2. They have had to recruit and train a large part of their labor and management pool from persons (including women) with no previous experience in the field.

3. Their operational practices have presumably been in a state of flux, changing from Chinese Nationalist and Japanese methods to Chinese Communist and/or Soviet methods.

4. A large, inexperienced bureaucracy, a premium on political reliability above technical ability, and a terroristic method of control which leads to the shifting of responsibility and the forcing of all decisions to ever higher levels--all these incline toward cumbersomeness and sluggishness.

5. They inherited a capital plant which is almost unique in its heterogeneity and whose fixed facilities had suffered terrific damage in a series of wars dating back at least to 1931.

6. They were repairing the fixed plant and building new lines during a time when the Korean War was already overtaxing their economy. At the same time their rolling stock was taking a terrific beating in Korea and presenting them with a repair burden which would have taxed the capacity of a fairly advanced system.

7. The drastic and to some extent temporary reorientation of the traffic pattern from the coastal port areas to the Siberian and Korean borders, etc. must have posed serious problems of adaptation.

8. The greatly increased average-length-of-haul resulting from the above (7.) would tend to increase turn-around-time and reduce the capability to originate tonnage.

9. In 1952 they were fighting a war at the end of their railroad line and this must have adversely affected loading as well as turn-around-time.

10. High accident rate is to be expected from a combination of the above factors and that such is the case is substantiated by reports of refugees.

Balancing these factors and apperceiving them within the whole context of the situation in China, we are convinced that the general performance of the Chinese Railroads must be well below par. On most performance factors they are considered to be inferior to either US or Soviet standards. Using performance figures compatible with this conception, a tons-originated capacity of around 45,000,000 tons results.

There remains the possibility, however, that under the pressure of the war the Chinese went to unusual and even "unreasonable" lengths to squeeze the last possible ton out of their system. We have seen fairly reliable reports of serious overloading of cars, train speeds beyond the normal limits of the equipment, etc. It is possible that at the expense of capital equipment they hauled substantially more than 45,000,000 tons in 1952. If so, they would soon have reached the point of diminishing returns at which the deterioration of equipment overbalanced the upward effect of their drastic methods and they would then have initiated an irresistible downward trend. It is even conceivable that a decreasing ability of their rail system to support their economy was an important element contributing to their decision to seek a truce in mid-1953. If this premise of "unreasonable" operations (habitual overloading, etc.) be accepted, it is conceivable that they may have originated as much as 55 or even 60 million tons in 1952. In this case it must be noted that an inevitable corollary is that performance in 1953 would deteriorate from that level rather than increase around 25 per cent as the Communists claim.

In order to achieve this top estimate of maximum capability, the following performance figures are used:

6 day average turnaround time,
24 tons average load per loaded car,
40,000 operable cars in car park, and
600 kilometer average length of haul.

All of these figures are rounded, because to make them more specific would imply a degree of reliability and certitude which positively does not exist.

NOTES:

1. As a reminder it must be restated that regardless of exploitation of labor and equipment, it is not possible to increase all performance figures simultaneously: e.g., if cars are overloaded, the number of cars an engine can pull will be lowered, and loading time will tend to go up, etc. Further, the apparent fact that about half the freight hauled is products of mines means inescapably that the percentage of empties is going to be high or the load per loaded car is going to be low. It should be noted that the fact that half of the system's capacity is tied up on the (generally) one-way mine hauls makes impossible any great increase in car utilization by using triangular and quadrangular (etc.) hauls. The cars have to get back to the mines.

2. It will be observed that 60,000,000 tons originated over a 600 km. haul produces a maximum ton-kilometers figure of 36 billion. The reader is reminded that cutting the average length of haul would tend to increase the capacity to originate tonnage, but not in direct ratio. Cutting the 600 kilometers in half would increase the tons originated capability by only 27 per cent. Consideration of the effect of a reduced average length of haul is purely academic, however, as such a change would entail

significant changes in the entire traffic pattern, which would introduce many modifying factors whose effects cannot be accurately anticipated.

3. Figures in this annex are in terms of metric tons. The 45,000,000 metric tons submitted here is about 10 per cent higher than the 45,000,000 short tons in the conclusions of [redacted] In the view of new evidence introduced in the TSC working group discussions, we feel that this slight increase is justified. It is pointed out that this figure falls well within the plus-or-minus 25 per cent probable error indicated in the [redacted] conclusions.

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